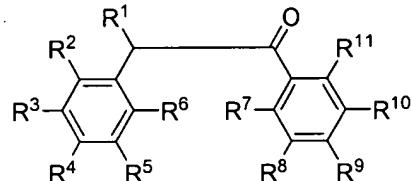


What is claimed is:

1. A composition for variably releasing fragrances comprising in combination:
 - 5 (a) a first organic agent that undergoes an intramolecular photochemical rearrangement that is induced by sunlight radiation to release a fragrance or form a second agent that is a fragrance; and
- 10 (b) a carrier for topical administration to skin or hair or administration to articles of clothing and other textiles via washing or spraying methods.

2. A photoresponsive fragrance composition comprising:

- 15 (a) a compound having the formula



wherein

R₁ is substituted ester (--OC(O)R₁₂), substituted phosphate (--OP(O)(R₁₉)(OR₂₀), substituted thiol (--S-R₁₂), substituted amine (--NH-R₁₂) or an other substituted chemical group covalently linked to a fragrance or fragrance molecule;

20 R₂, R₃, R₄, R₅, and R₆ are independently hydrogen, hydroxy, alkyl, aryl, alkoxy or substituted alkoxy;

R₇, R₈, R₉, R₁₀, and R₁₁ are independently hydrogen, alkyl, aryl, alkoxy or substituted alkoxy;

25 R₁₂ is a fragrance or molecule that imparts a fragrance;

R_{19} is a hydrogen and R_{20} is a fragrance or molecule that imparts a fragrance or R_{19} is a fragrance or molecule that imparts a fragrance and R_{20} is a hydrogen

wherein at least one of R_2 or R_6 is hydrogen;

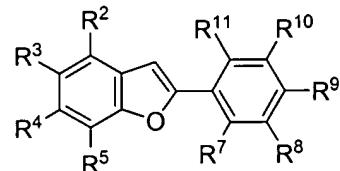
5 wherein at least one of R_2 , R_3 , R_4 , R_5 , or R_6 is hydroxy or substituted alkoxy; and

(B) a carrier for topical administration to skin or hair or direct administration to articles of clothing or other textiles.

10

3. A photoresponsive fragrance composition comprising:

(A) a sunlight absorbing compound having the formula



wherein

15 R_2 , R_3 , R_4 , and R_5 are independently hydrogen, hydroxy (C_{1-20})alkyl, (C_{5-12})aryl, (C_{1-20})alkoxy or substituted (C_{1-20})alkoxy;

R_7 , R_8 , R_9 , R_{10} , and R_{11} are independently hydrogen, (C_{1-20})alkyl, (C_{5-12}) aryl, (C_{1-20})alkoxy or substituted (C_{1-20})alkoxy;

wherein at least one of R_2 , R_3 , R_4 , or R_5 is hydroxy or substituted (C_{1-20})alkoxy;

20

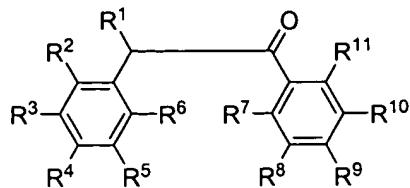
(B) a carrier for topical administration to skin or hair, or direct administration to articles of clothing or other textiles;

(C) a fragrance or fragrance molecule.

25

4. A composition useful for releasing fragrances of a desired scent comprising:

(A) a compound having the formula



wherein

R₁ is substituted ester (--OC(O)R₁₂), substituted phosphate (--OP(O)(R₁₉)(OR₂₀), substituted thiol (--S-R₁₂), substituted amine (--NH-R₁₂) or an other substituted chemical group covalently linked to a fragrance or fragrance molecule

R₂, R₃, R₄, R₅, and R₆ are independently hydrogen, hydroxy, alkyl, aryl, alkoxy, or substituted alkoxy;

R₇, R₈, R₉, R₁₀, and R₁₁ are independently hydrogen, alkyl, aryl, alkoxy, or substituted alkoxy;

R₁₂ is a fragrance or fragrance molecule;

R₁₉ is hydrogen or a fragrance molecule; and

R₂₀ is hydrogen or a fragrance molecule wherein at least one of R₂ or R₆ is hydrogen; wherein at least one of R₂, R₃, R₄, R₅ or R₆ is hydroxy or substituted alkoxy; and

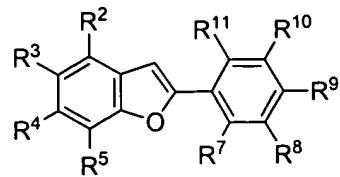
(B) a carrier for topical administration to skin or hair or direct administration to articles of clothing and other textiles.

5. The composition according to claim 4 further comprising an auxiliary
20 fragrance agent having a different fragrance than the photoreleased fragrance.

6. The composition according to claim 4 further comprising a photo rearranged product having a desirable fragrance.

25 7. A composition useful for releasing a desirable fragrance comprising:

(A) an sunlight absorbing compound having the formula



wherein

R₂, R₃, R₄, and R₅ are independently hydrogen, hydroxy, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;

5 R₇, R₈, R₉, R₁₀, and R₁₁, are independently is hydrogen, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;

wherein at least one of R₂, R₃, R₄, or R₅ is hydroxy or substituted (C₁₋₂₀)alkoxy and

(B) a carrier for topical administration or direct administration to articles of
10 clothing and other textiles or via routine washing.

8. The composition according to claim 7 wherein

R₂ is hydrogen;

R₃ is hydrogen, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;

15 R₄ is hydrogen;

R₅ is (C₁₋₂₀)alkoxy or substituted (C₁₋₂₀)alkoxy;

R₇ is hydrogen;

R₈ is hydrogen;

R₉ is hydrogen;

20 R₁₀ is hydrogen; and

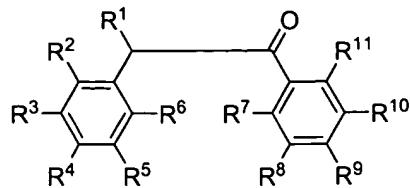
R₁₁ is hydrogen.

9. The composition according to claim 7 further comprising an auxiliary fragrance agent having a different fragrance than compound (A).

25

10. A photoresponsive fragrance composition comprising:

(A) a compound having the formula



wherein

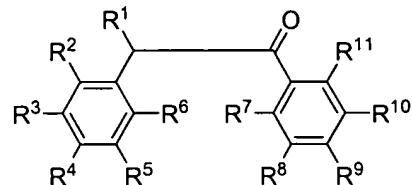
- R₁ is substituted ester (--OC(O)R₁₂), substituted phosphate (--OP(O)(R₁₉)(OR₂₀),
5 substituted thiol (--S-R₁₂), substituted amine (--NH-R₁₂) or an other
 substituted chemical group covalently linked to a fragrance or fragrance
 molecule.;
- R₂ is hydrogen, hydroxy, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy or substituted (C₁₋₂₀)alkoxy;
10 R₃ is hydrogen, hydroxy, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy or substituted (C₁₋₂₀)alkoxy;
- R₄ is hydrogen, hydroxy, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy or substituted (C₁₋₂₀)alkoxy;
- R₅ is hydrogen, hydroxy, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy or substituted (C₁₋₂₀)alkoxy;
15 R₆ is hydrogen, hydroxy, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy or substituted (C₁₋₂₀)alkoxy;
- R₇ is hydrogen, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy or substituted (C₁₋₂₀)alkoxy;
- R₈ is hydrogen, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy or substituted (C₁₋₂₀)alkoxy;
20 R₉ is hydrogen, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy or substituted (C₁₋₂₀)alkoxy;
- R₁₀ is hydrogen, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy or substituted (C₁₋₂₀)alkoxy;
- R₁₁ is hydrogen, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy or substituted (C₁₋₂₀)alkoxy;
25 R₁₂, is a fragrance or molecule that imparts a fragrance;
- R₁₉ is hydrogen or a fragrance molecule;
- R₂₀ is hydrogen or a fragrance molecule;
wherein at least one of R₂ or R₆ is hydrogen;
- wherein at least one of R₂, R₃, R₄, R₅, or R₆ is hydroxy or substituted (C₁₋₂₀)alkoxy;
and

(B) a carrier for topical administration or direct administration to articles of clothing and other textiles or via routine washing.

11. A composition useful releasing a desired fragrance comprising:

5

(A) a compound having the formula



wherein

R₁ is substituted ester (--OC(O)R₁₂), substituted phosphate (--OP(O)(R₁₉)(OR₂₀),
10 substituted thiol (--S-R₁₂), substituted amine (--NH-R₁₂) or an other substituted
chemical group covalently linked to a fragrance or fragrance molecule.;

R₂ is hydrogen, hydroxy, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;

R₃ is hydrogen, hydroxy, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;
15 R₄ is hydrogen, hydroxy, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;

R₅ is hydrogen, hydroxy, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;

R₆ is hydrogen, hydroxy, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;
20 R₇ is hydrogen, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;

R₈ is hydrogen, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;

R₉ is hydrogen, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;

R₁₀ is hydrogen, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;
25 R₁₁ is hydrogen, (C₁₋₂₀)alkyl, (C₅₋₁₂)aryl, (C₁₋₂₀)alkoxy, or substituted (C₁₋₂₀)alkoxy;

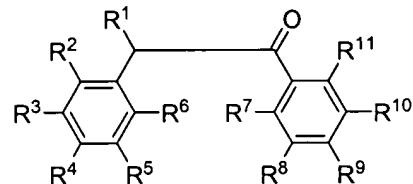
R₁₂ is a fragrance or a molecule that imparts a fragrance;

R₁₉ is hydrogen or a fragrance molecule
R₂₀ is hydrogen or a fragrance molecule
wherein at least one of R₂ or R₆ is hydrogen;
wherein at least one of R₂, R₃, R₄, R₅ or R₆ is hydroxy or substituted (C₁₋₂₀)alkoxy;
5 and

(B) a carrier for topical administration or direct administration to articles of clothing and other textiles or via routine washing.

10 12. A photoresponsive fragrance composition comprising:

(A) a compound having the formula



15 wherein

R₁ is a fragrance molecule; R₂ is hydrogen, hydroxy, alkyl, aryl, alkoxy or substituted alkoxy;

R₃, R₄, R₅, and R₆ are independently hydrogen, hydroxy, alkyl, aryl, alkoxy or substituted alkoxy;

20 R₇, R₈, R₉, R₁₀, and R₁₁ are independently hydrogen, alkyl, aryl, alkoxy or substituted alkoxy;

wherein at least one of R₂ or R₆ is hydrogen;

wherein at least one of R₂, R₃, R₄, R₅, or R₆ is hydroxy or substituted alkoxy; and

25 (B) a carrier for topical administration or direct administration to article of clothing and other textiles or via routine washing.

13. A method of controlling the release of a fragrance by incorporating the compositions of any one of claims 1 to 12 into clothing or textiles by spraying

the composition onto the clothing or textiles or washing the clothing or textiles in a solution of the composition.

14. A method according to claim 13, wherein the composition is
5 sprayed onto the clothing or textiles.

15. A method according to claim 13, wherein the composition is incorporated into the clothing or textiles via washing.

10 16. A composition according to any one of claims 1, 2, 3, 4, 5, or 6
wherein the composition is formulated for spraying onto the skin.

17. A composition according to any one of claims 1, 2, 3, 4, 5, or 6
wherein the composition is formulated for rubbing onto the skin.

15 18. A method of controlling the release of a fragrance by applying the compositions of any one of claims 1 to 12 onto the skin or hair of a mammal.

20 19. A method according to claim 16, wherein the mammal is a human.
20 20. A method according to claim 16, wherein the mammal is a companion animal.

25 21. A composition according to any one of claims 1, 2, 4, 5, 6, 10, 11,
12, 16, or 17, wherein the compound is of the formula:

